GEOS 53 Geologic Evolution of the Earth
Essay #1 ~ Fall 2005

Essays should be typed (normal margins, double or 1 1/2 spaced and no less than 11 font) and
between three to four pages in length. The essay should have a clear, concise introductory
paragraph that captures the reader's attention and introduces the topic of the essay. The body of
the essay should be followed by a concluding paragraph that is in some way linked to the
introductory paragraph. Use your text, lecture notes and any other sources that you need. If you
do use sources other than lecture notes and class handouts, you must use an appropriate
citation in the body of the essay and provide a bibliography at the end of the essay. Please do
not use cover pages or binders/folders. One staple is appropriate. Do not use a separate page for
the bibliography unless it is needed for space. Once returned to you the essays should be
incorporated into your class portfolio.

Essay Topic #1  Life on a Moving Plate
Before starting your essay review your notes on climates [mean temperatures, seasonality,
rainfall] and very carefully review the class handout on Natural Selection and your class notes on
Organisms and Climate Change. In you essay you should incorporate ALL the following topics:
What can happen to the climate of an island, like Hawaii, and the shallow waters that surround it
as it moves from one place to another as part of a moving plate of lithosphere? What causes the
climate/water temperature changes? What can happen to animal and plant populations as
continents move? What can cause plant and animal populations to become extinct? What can
cause new plant and animal populations to come into existence? What is the role of genetic
mutation? Natural Selection?

Scenario: You are following the history of a “generic” group of land animals and land plants
population on an island [or a group of animals living in the shallow waters surrounding the
island] as it moves NORTH WEST from an area of about 20°N latitude towards the coast of
Russia. You goal is to explain what changes, if any, might occur in the climates/water
temperatures and how might your group of organisms been affected.

You may be creative and assume the role of one of these creatures and the changes which
affected “your family” as “it” rode northwest at 6-10cm/yr on this island or in the shallow waters
adjacent to it.

Due at the start of class on Monday September 27.